

V&V Reference Report

L2 ASCDS Version : 10.9.2

Observation 20935 - L2 Version 2
Chandra X-Ray Center

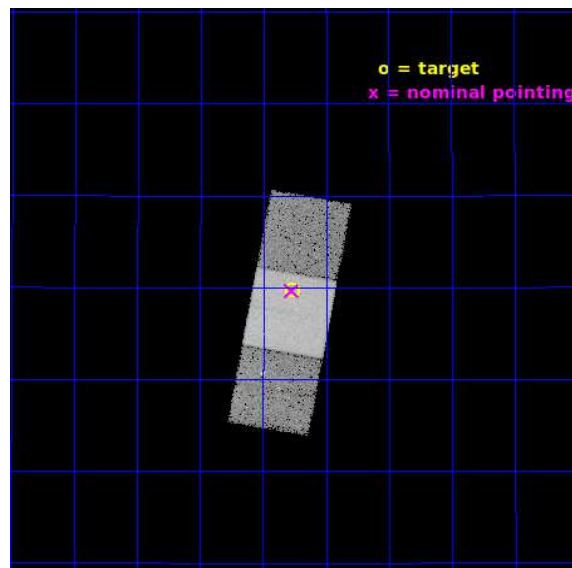
L2 Processing Date : Oct 24 2020

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1 Front

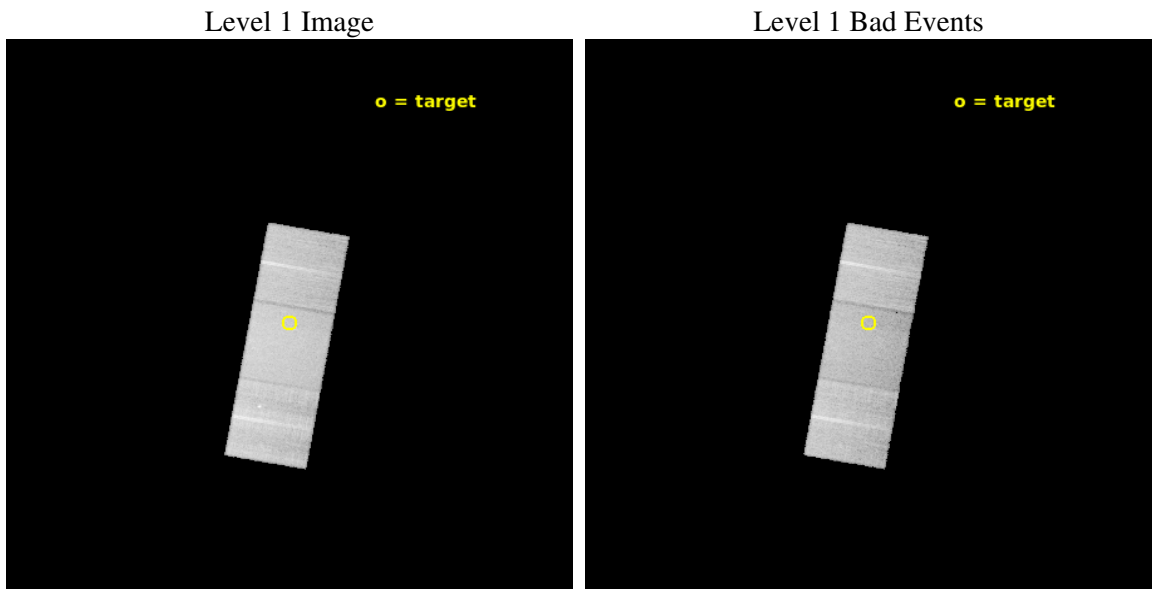
seq_num	601290	Sequence number
obs_id	20935	Observation id
title	A Close-Up Look at a $z = 10$ Galaxy Analog: A Deep Chandra Exposure of DDO68	Proposal title
observer	Bret Lehmer	Principal investigator
object	DDO 68	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	149.190833	Observer's specified target RA [deg]
dec_targ	28.828583	Observer's specified target Dec [deg]
ra_nom	149.19268291867	Nominal RA [deg]
dec_nom	28.827691107758	Nominal Dec [deg]
roll_nom	100.14973800571	Nominal Roll [deg]
revision	2	Processing version of data
ontime	20109.700154781	Sum of GTIs [s]
livetime	19846.952117713	Livetime [s]
ontime6	20109.700154781	Sum of GTIs [s]
ontime7	20109.700154781	Sum of GTIs [s]
ontime8	20106.5591048	Sum of GTIs [s]
l2events	111991	Number of level 2 events



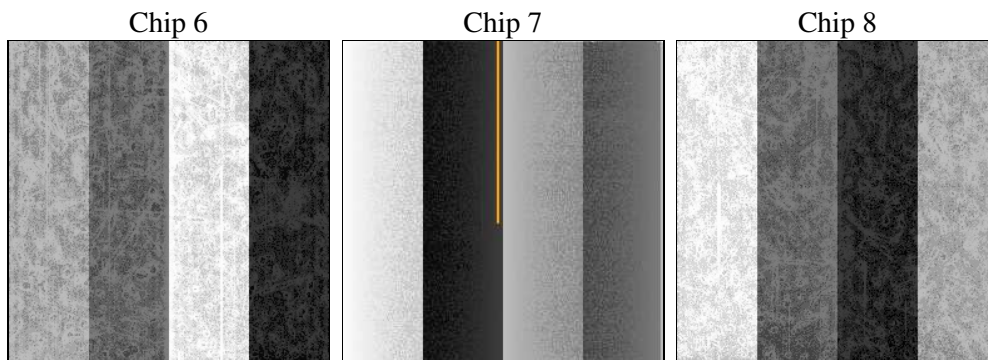
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	20000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	20109.700154781	Sum of GTIs [s]
caldbver	4.9.3	 	ontime6	20109.700154781	Sum of GTIs [s]
date	2020-10-24T07:56:35	Date and time of file creation	ontime7	20109.700154781	Sum of GTIs [s]
revision	2	Processing version of data	ontime8	20106.5591048	Sum of GTIs [s]
			l1events	550392	Number of level 1 events

2.1.4 Events

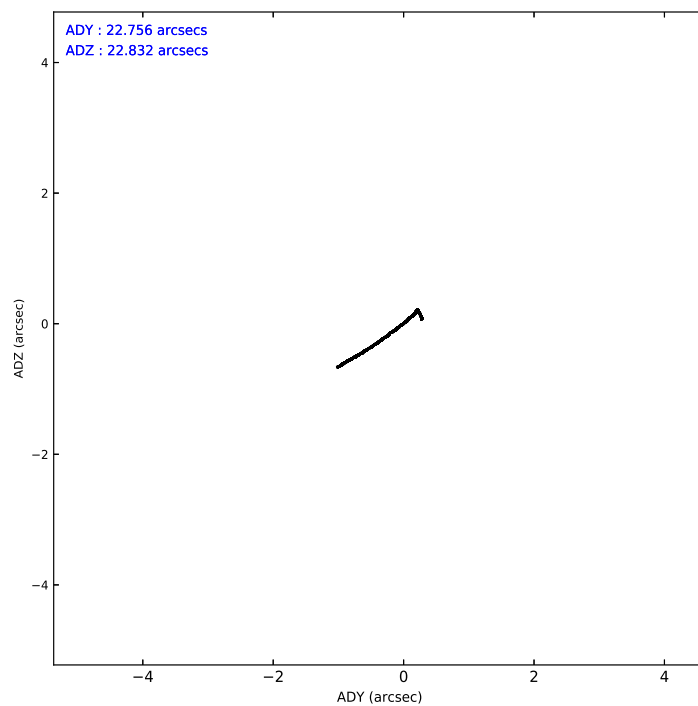
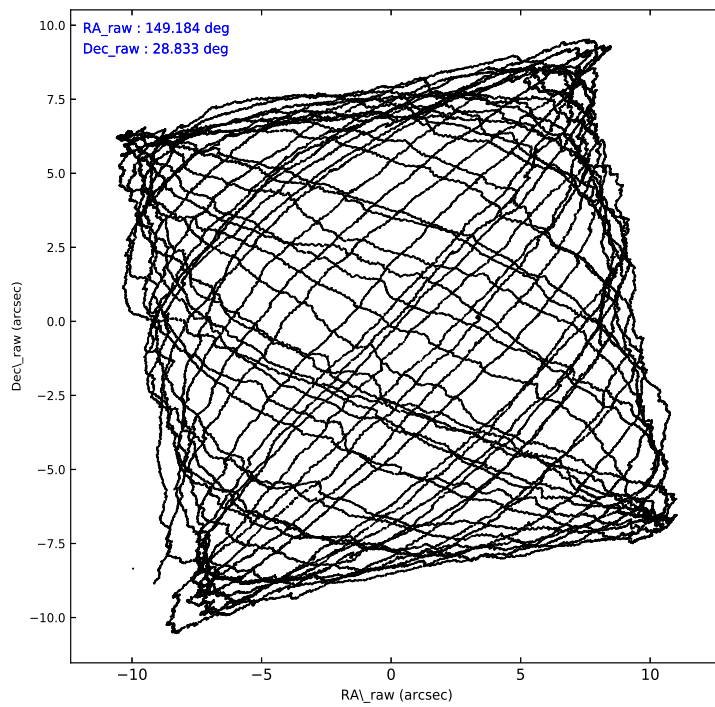
	ccd 6	ccd 7	ccd 8
level 1 events	159187	192186	199019
rejected events	142445	108877	147753
rejected %	89%	56%	74%

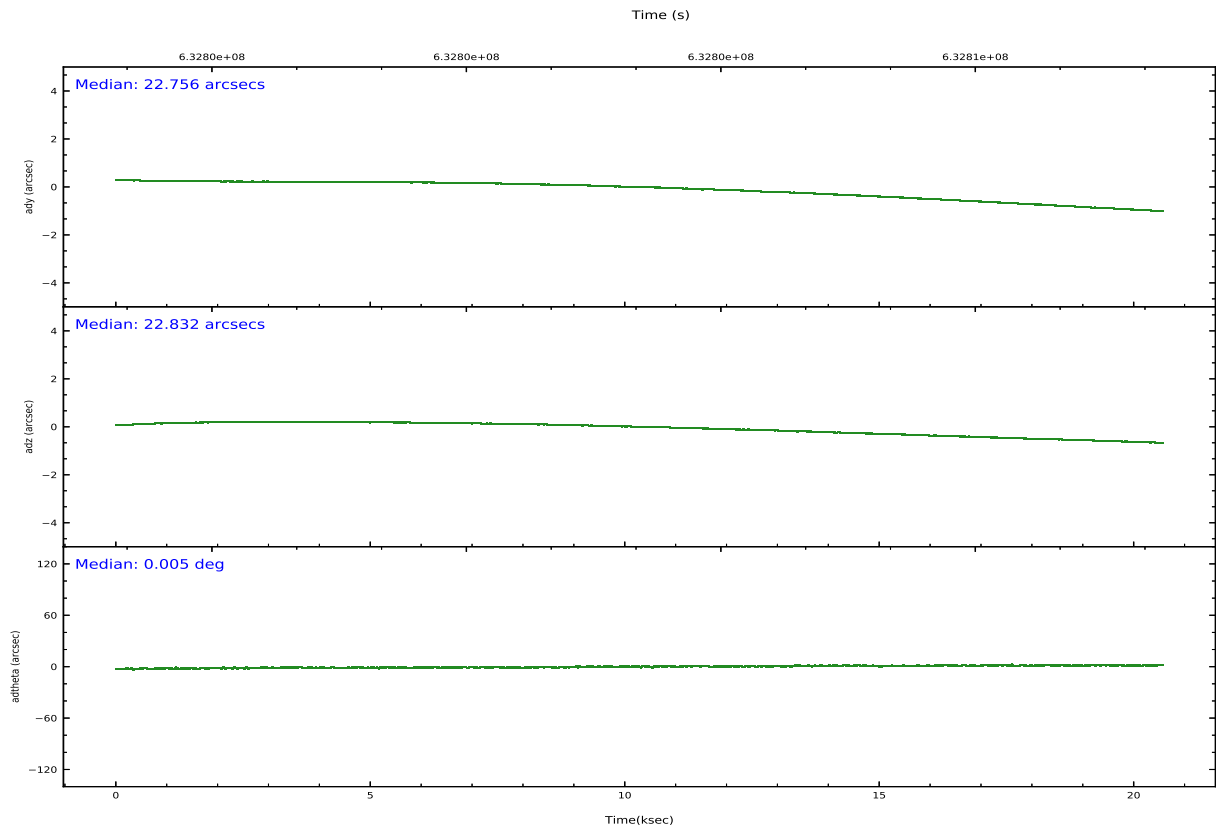
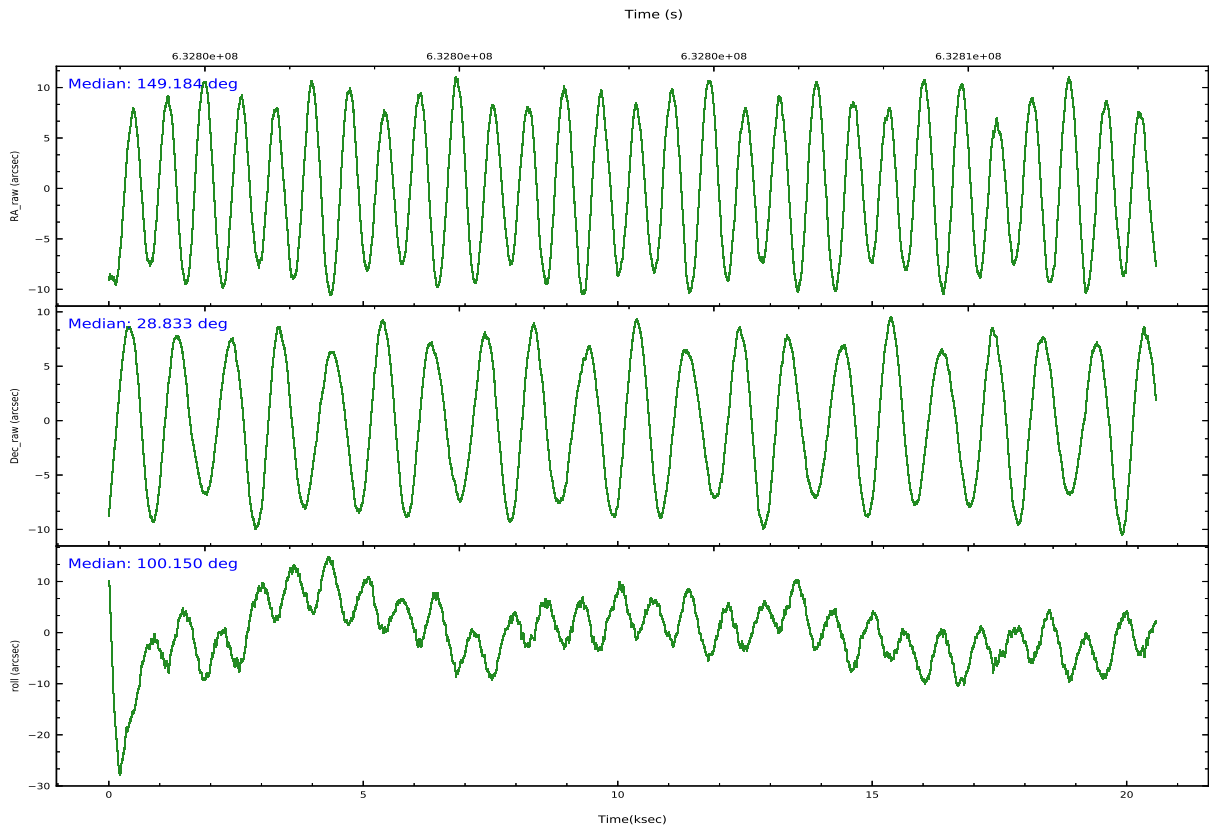
	ccd 6	ccd 7	ccd 8
grade 0 events	4892	7058	14319
	3%	3%	7%
grade 1 events	77	268	143
	0%	0%	0%
grade 2 events	4393	17296	12420
	2%	8%	6%
grade 3 events	1491	6637	5145
	0%	3%	2%
grade 4 events	1500	6508	4776
	0%	3%	2%
grade 5 events	6411	18759	10373
	4%	9%	5%
grade 6 events	4469	45824	14611
	2%	23%	7%
grade 7 events	135954	89836	137232
	85%	46%	68%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-678	ACIS-678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	149.204571	149.19268291867	CCD I2 on	O1	N
[deg] Pointing Dec	28.812195	28.827691107758	CCD I3 on	O2	N
[deg] Pointing Roll	99.993384	100.14973800571	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	N	N
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	Y	Y
[s] Observation start time (MET)	632793690.184000	632792595.44856	CCD S5 on	N	N
Observation start date	2018-01-20T00:00:21	2018-01-19T23:43:15	Number of optional ACIS chips dropped	2	2
[s] Observation end time (MET)	632813690.184000	632814139.41233	On-chip summing requested	N	N
Observation end date	2018-01-20T05:33:41	2018-01-20T05:42:19	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



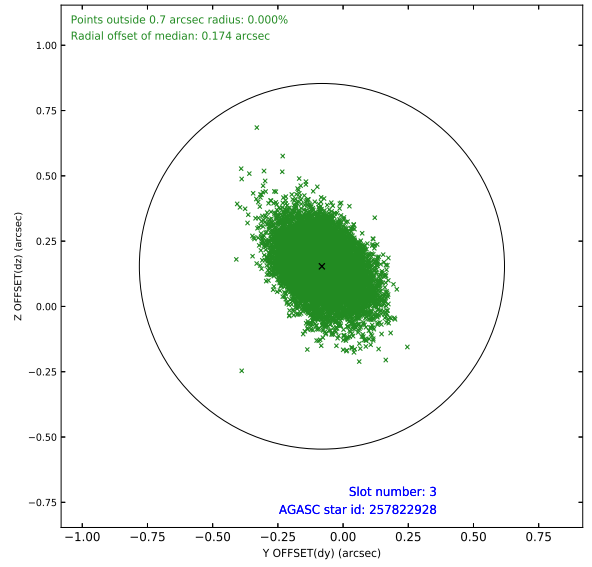
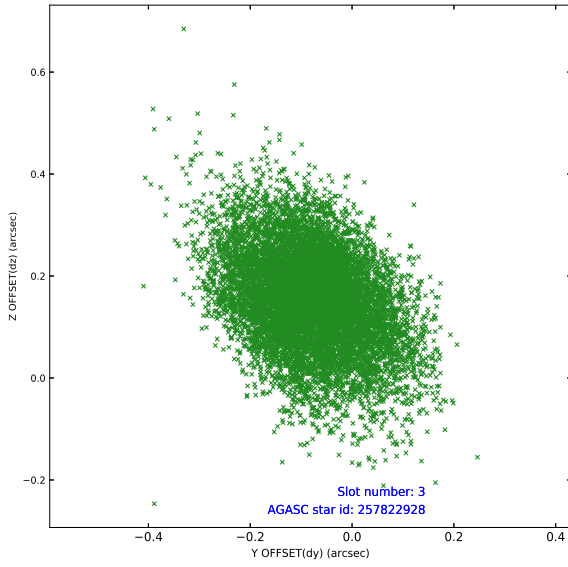


Slot Statistics

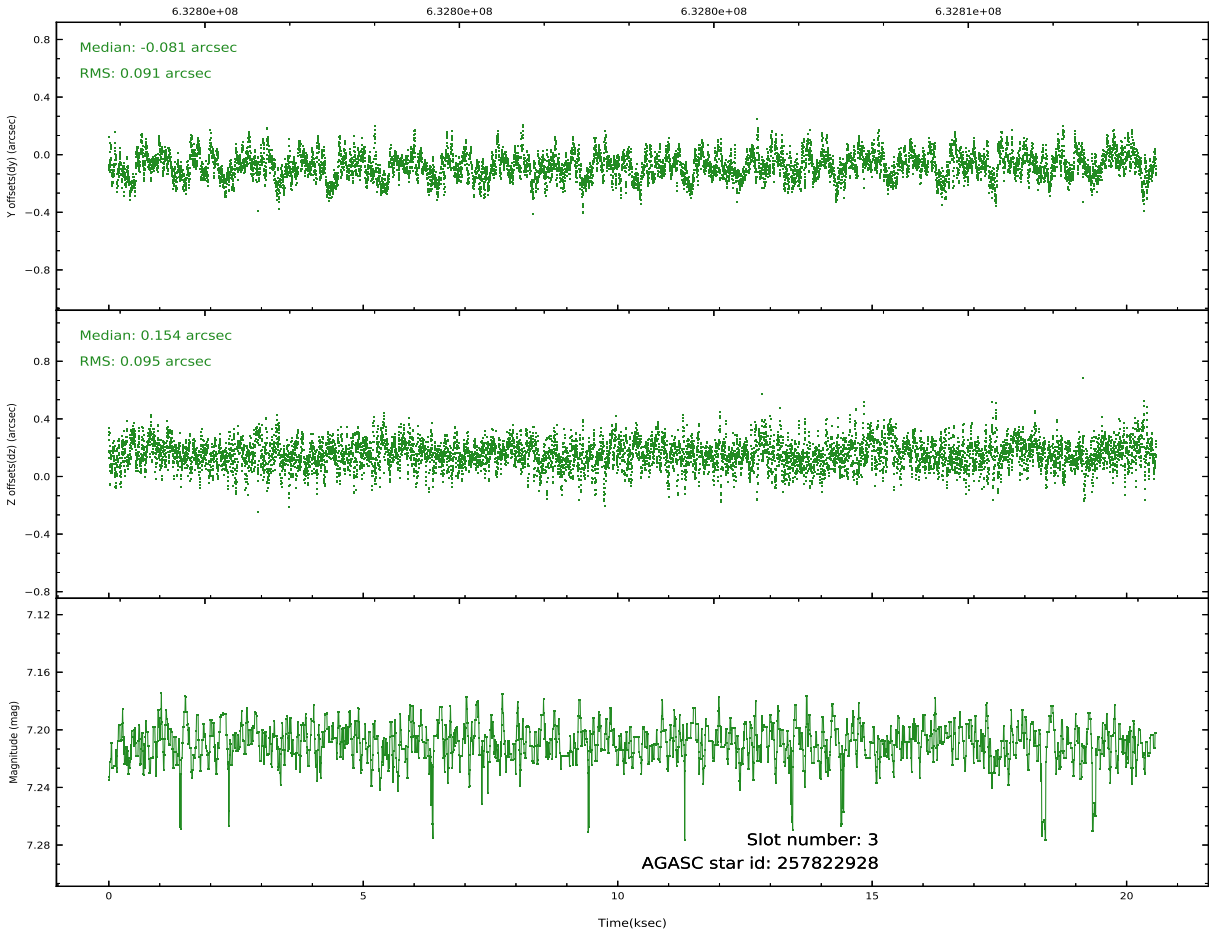
slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_x
0	FID		ACIS-S-2	7.13	5020	1.000	0.187	-0.134	0.011	0.018	0.000000	0.000000	-775.89	-1744
1	FID		ACIS-S-4	7.22	5019	1.000	0.066	-0.054	0.016	0.026	0.000000	0.000000	2137.49	163
2	FID		ACIS-S-5	7.23	5019	1.000	-0.284	0.197	0.015	0.024	0.000000	0.000000	-1828.67	158
3	GUIDE	used	257822928	7.21	10037	1.000	-0.081	0.154	0.137	0.229	149.311326	28.561285	-947.63	-175
4	GUIDE	used	257823080	8.69	10033	1.000	0.128	0.329	0.131	0.221	149.610595	28.489924	-1363.02	-1063
5	GUIDE	used	257826976	8.89	10037	1.000	-0.132	0.035	0.183	0.290	149.445637	29.490398	2274.24	-1167
6	GUIDE	used	257828304	8.62	10029	1.000	0.238	-0.196	0.157	0.254	149.365873	29.172027	1188.58	-724
7	GUIDE	used	257819432	9.28	10019	1.000	-0.153	-0.321	0.170	0.286	148.523233	28.477865	-805.36	2331

2.4 Star Slots

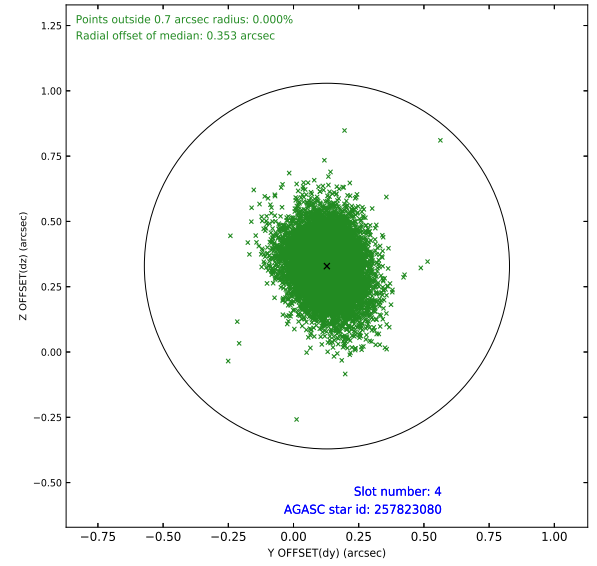
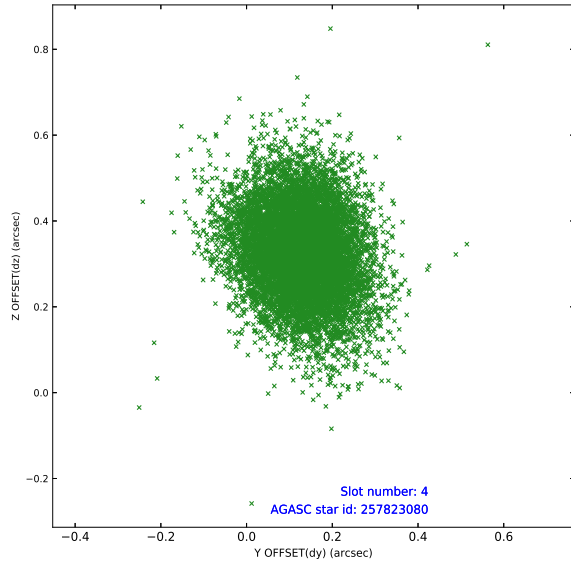
2.4.1 Slot 3



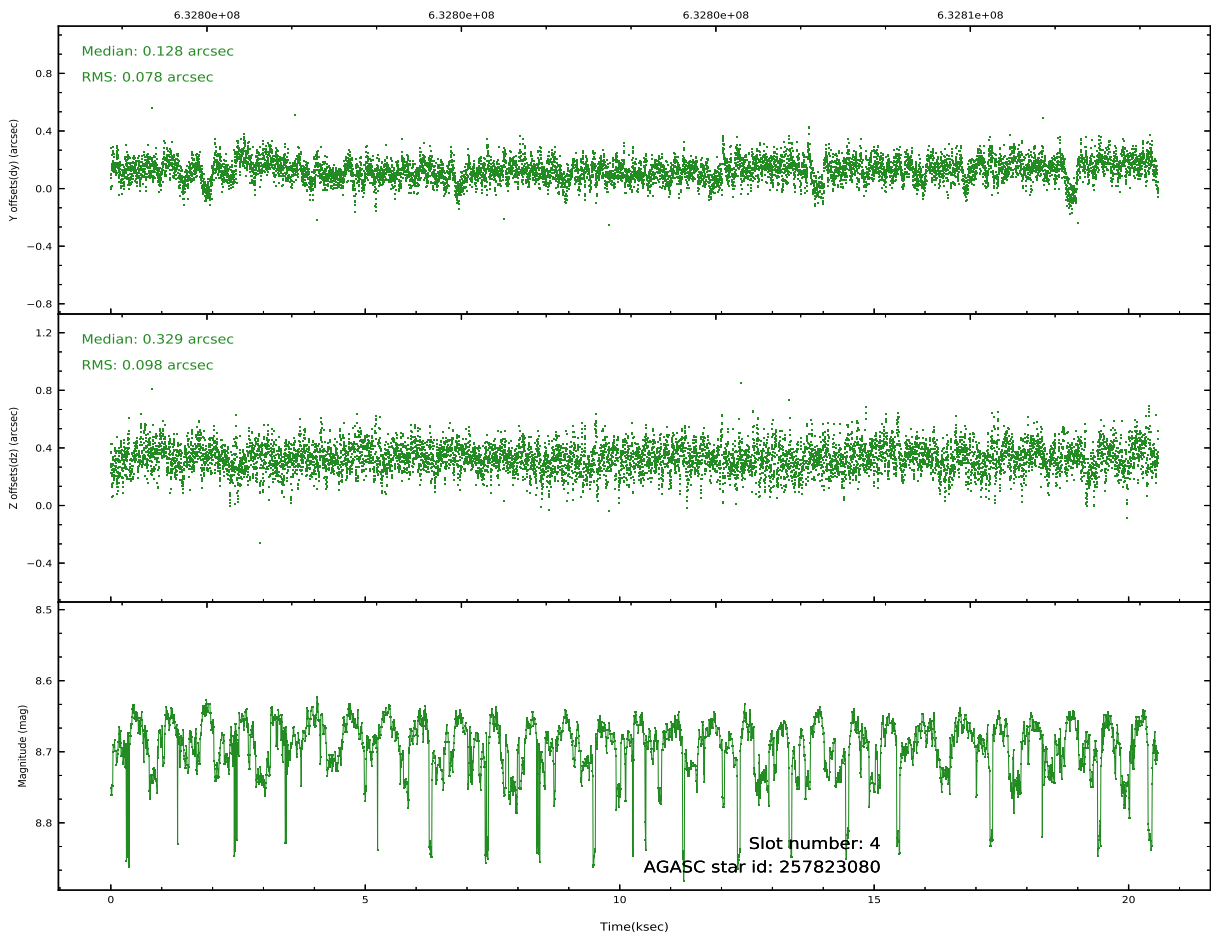
Time (s)



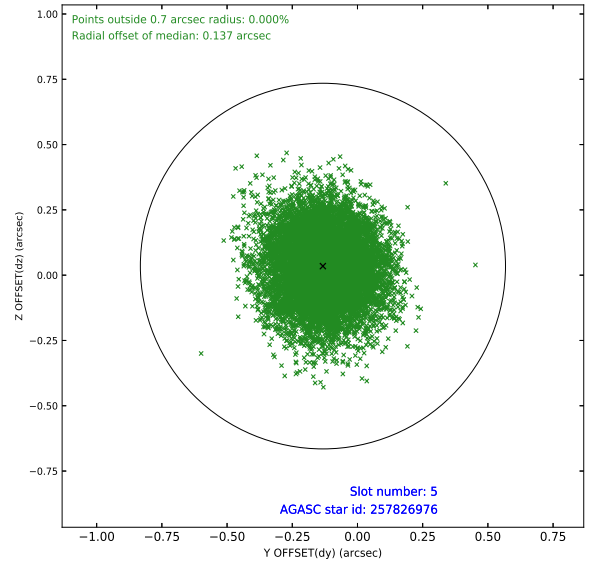
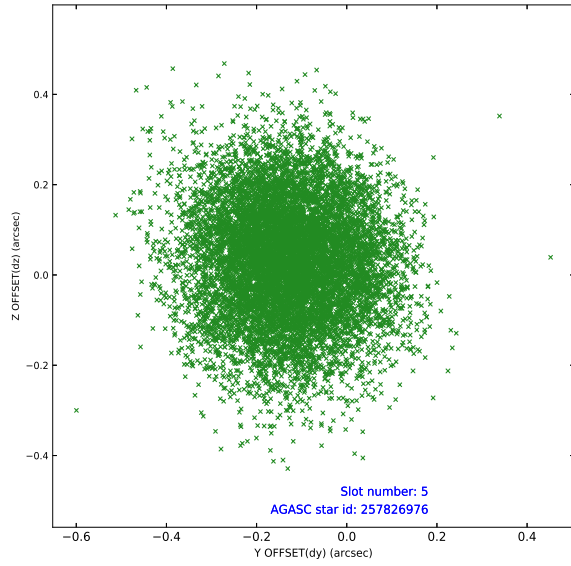
2.4.2 Slot 4



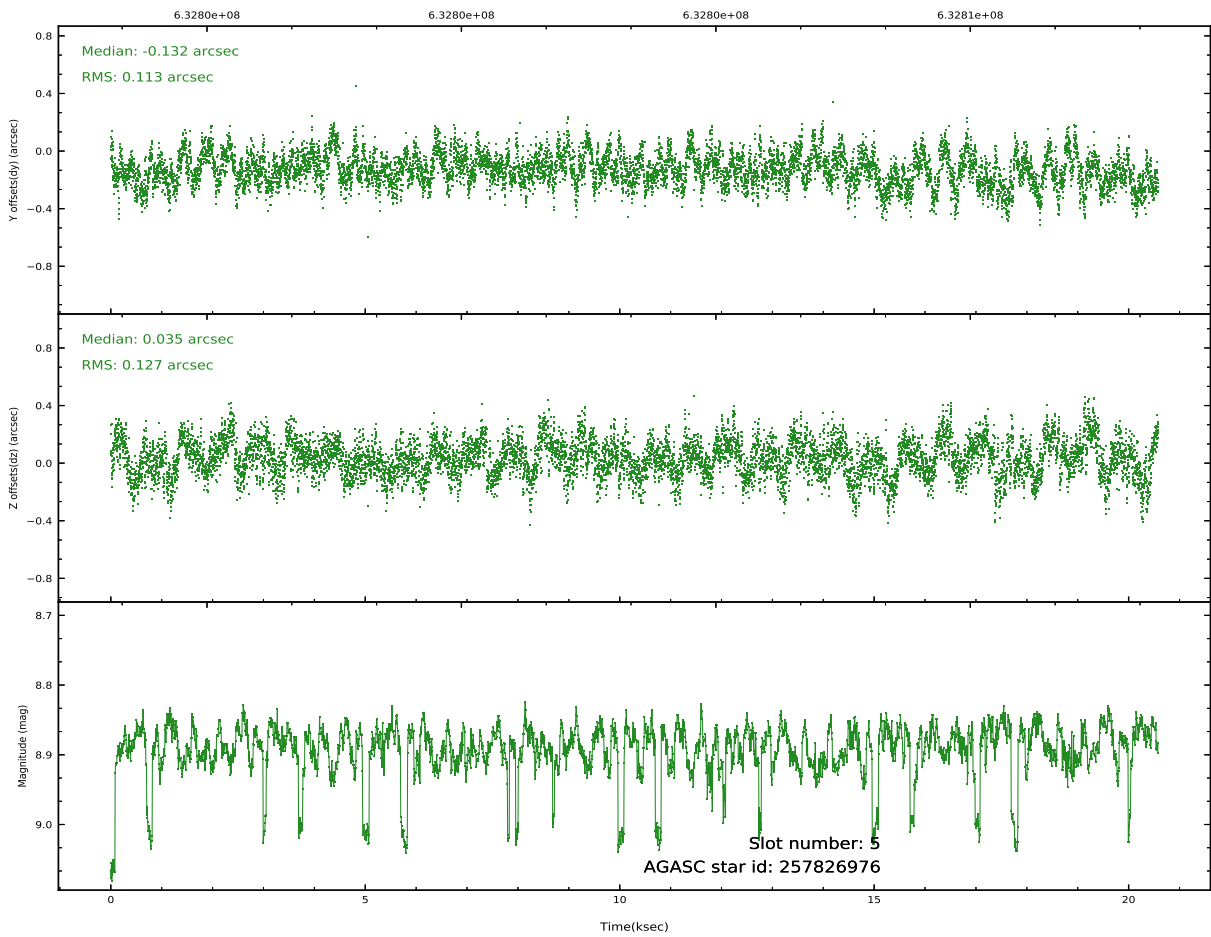
Time (s)



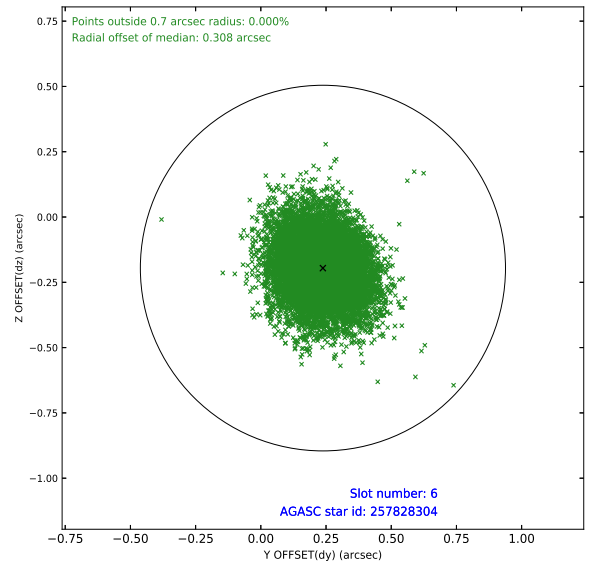
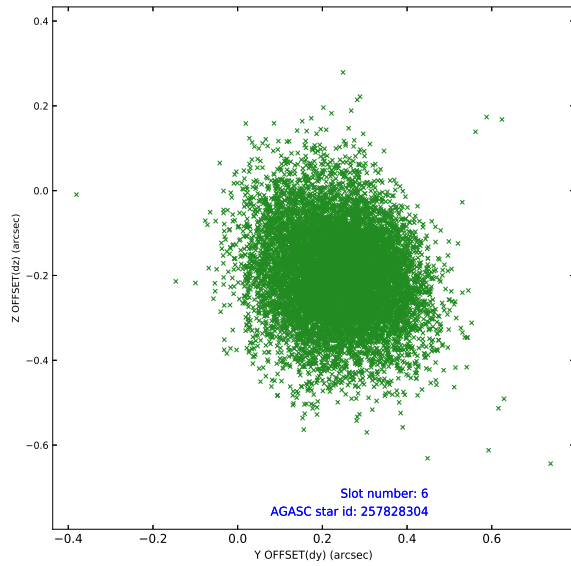
2.4.3 Slot 5



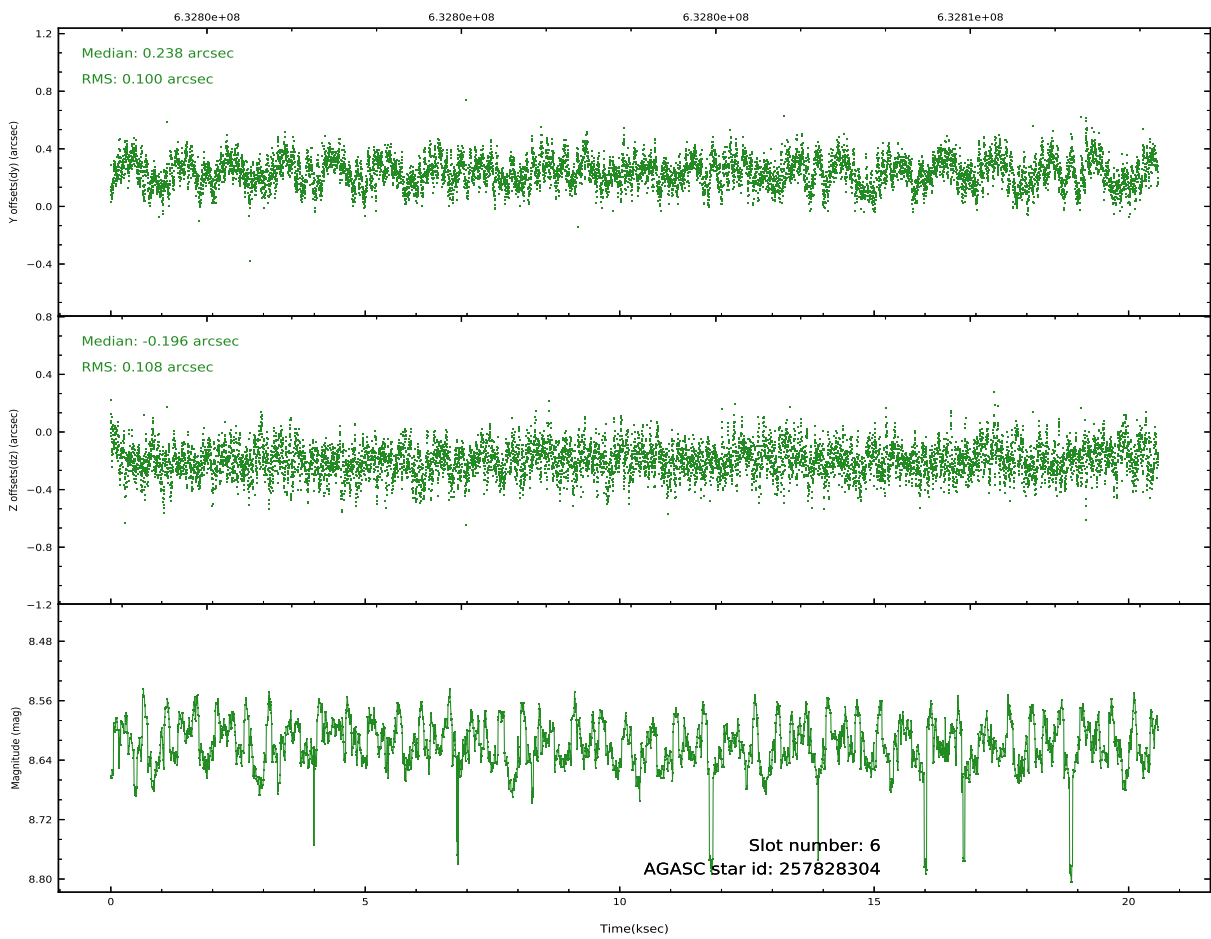
Time (s)



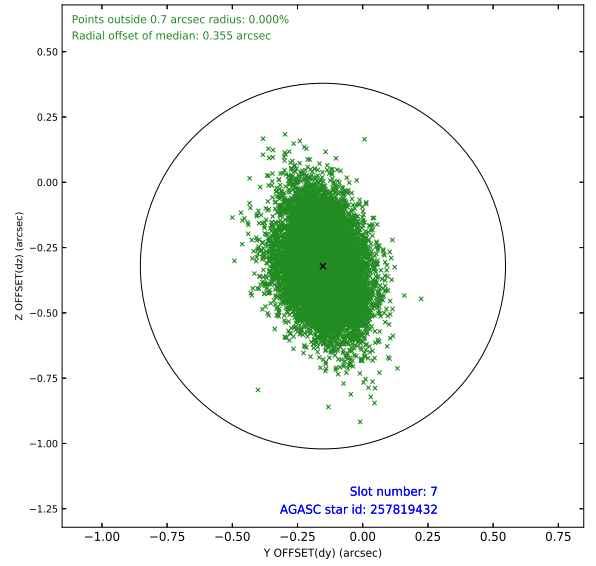
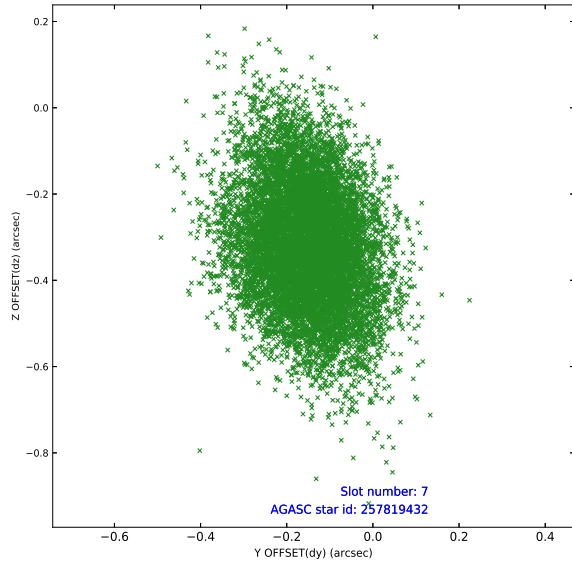
2.4.4 Slot 6



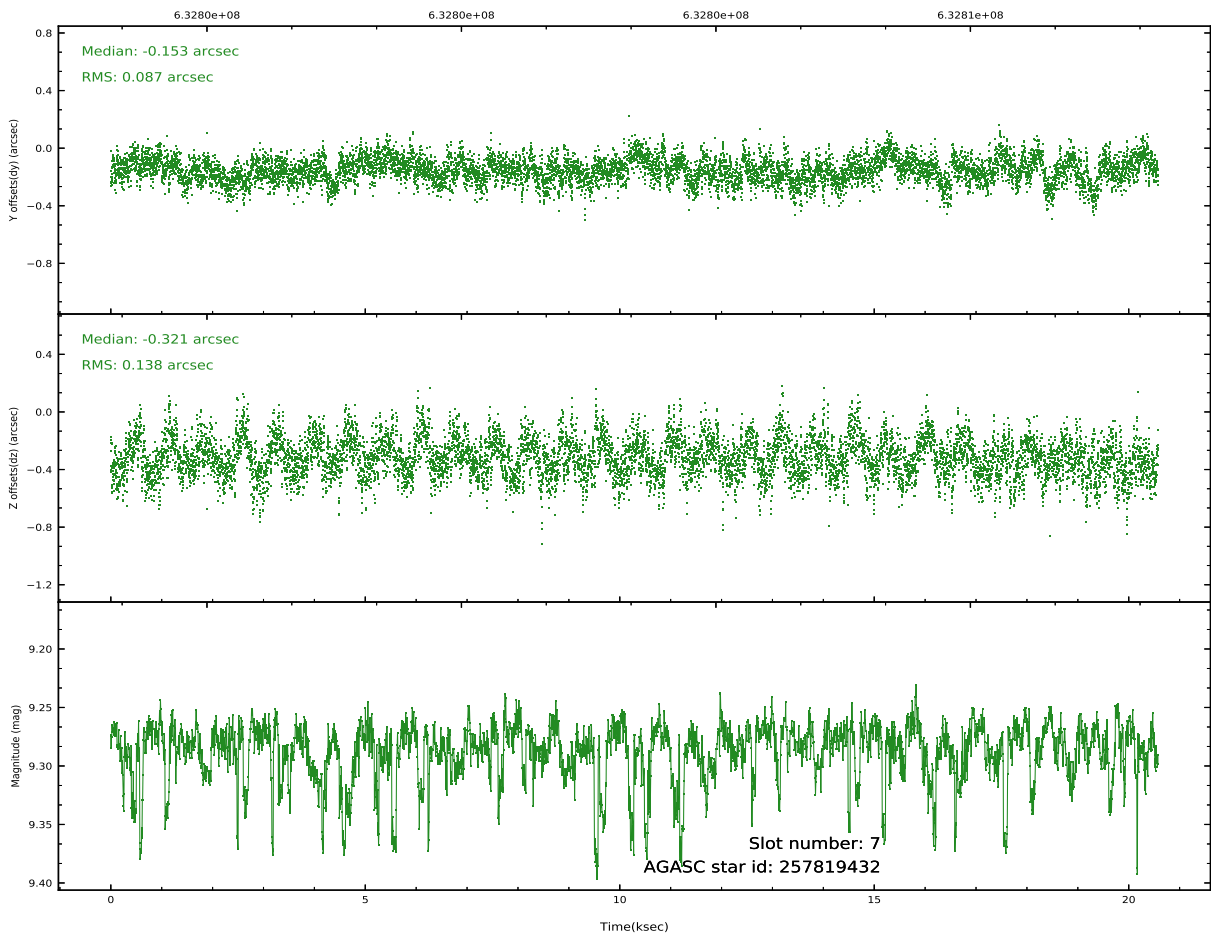
Time (s)



2.4.5 Slot 7

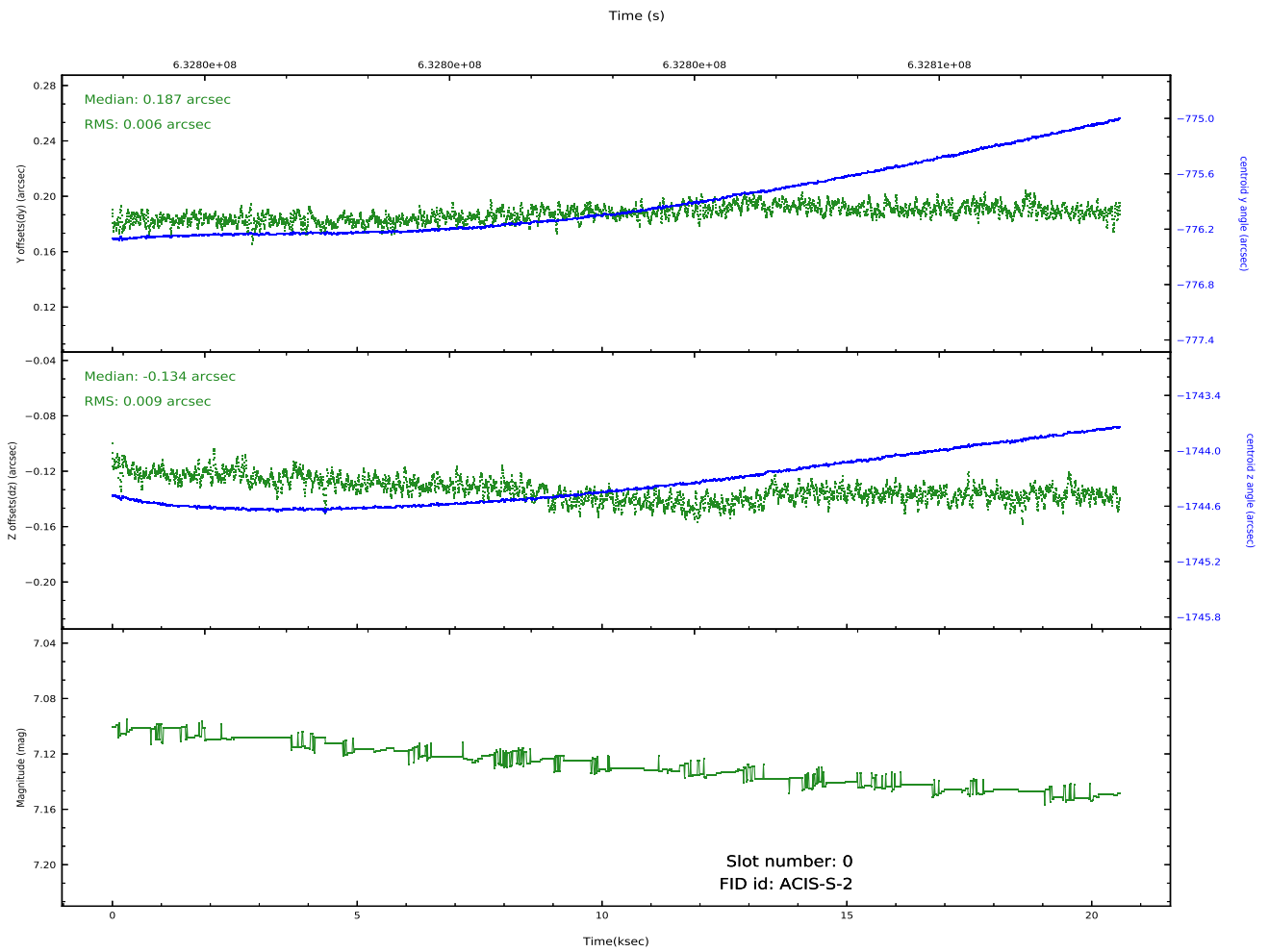
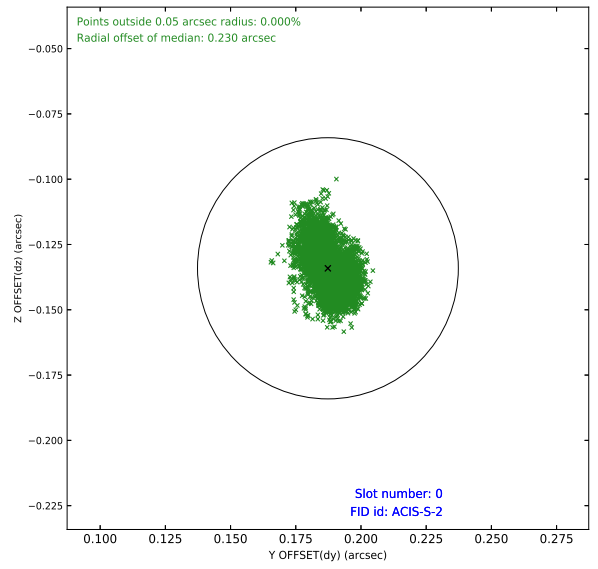
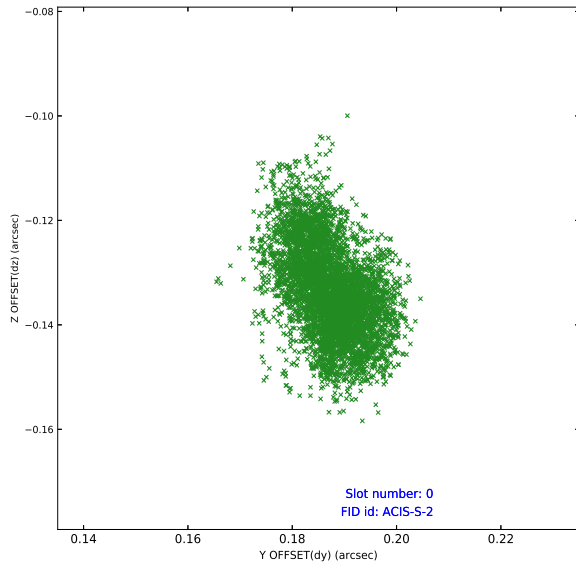


Time (s)

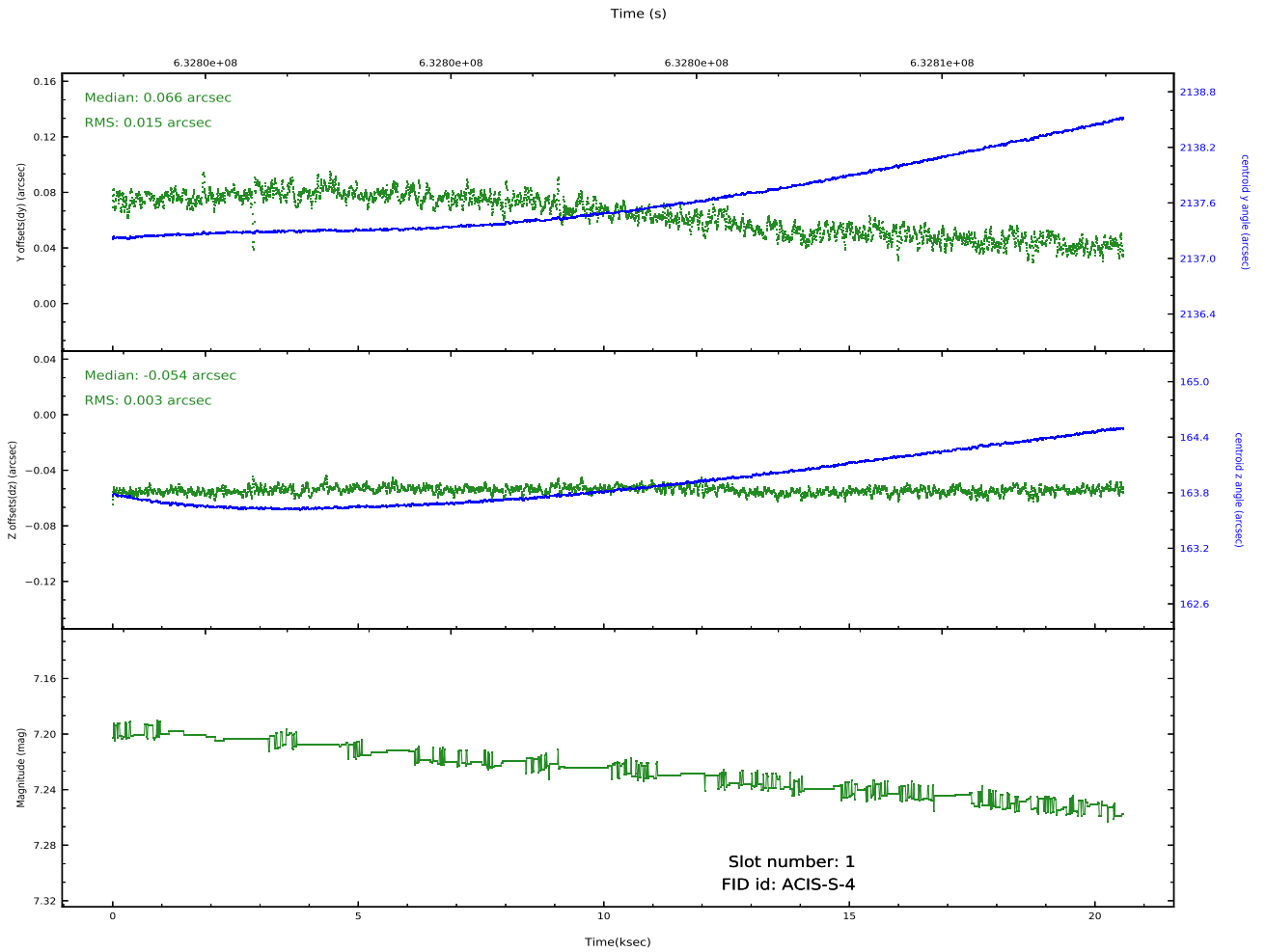
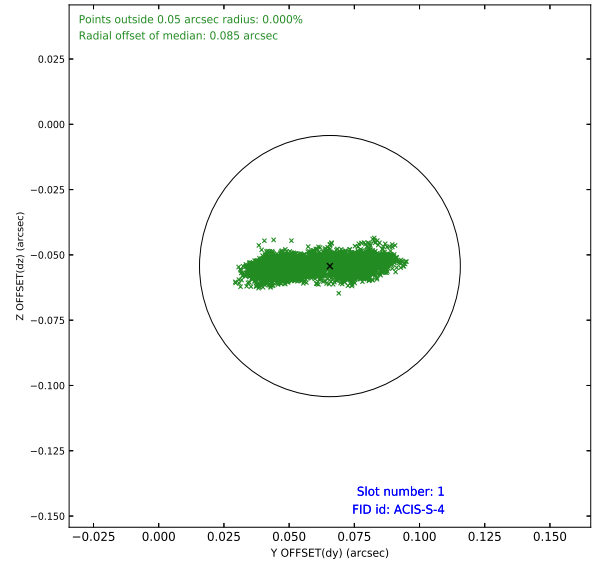
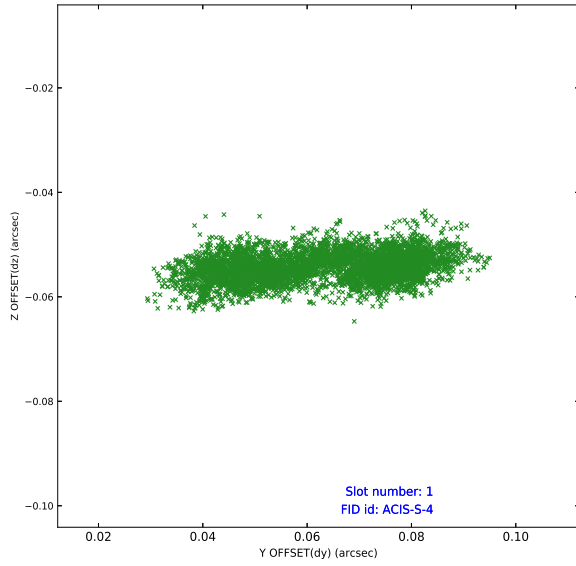


2.5 FID Slots

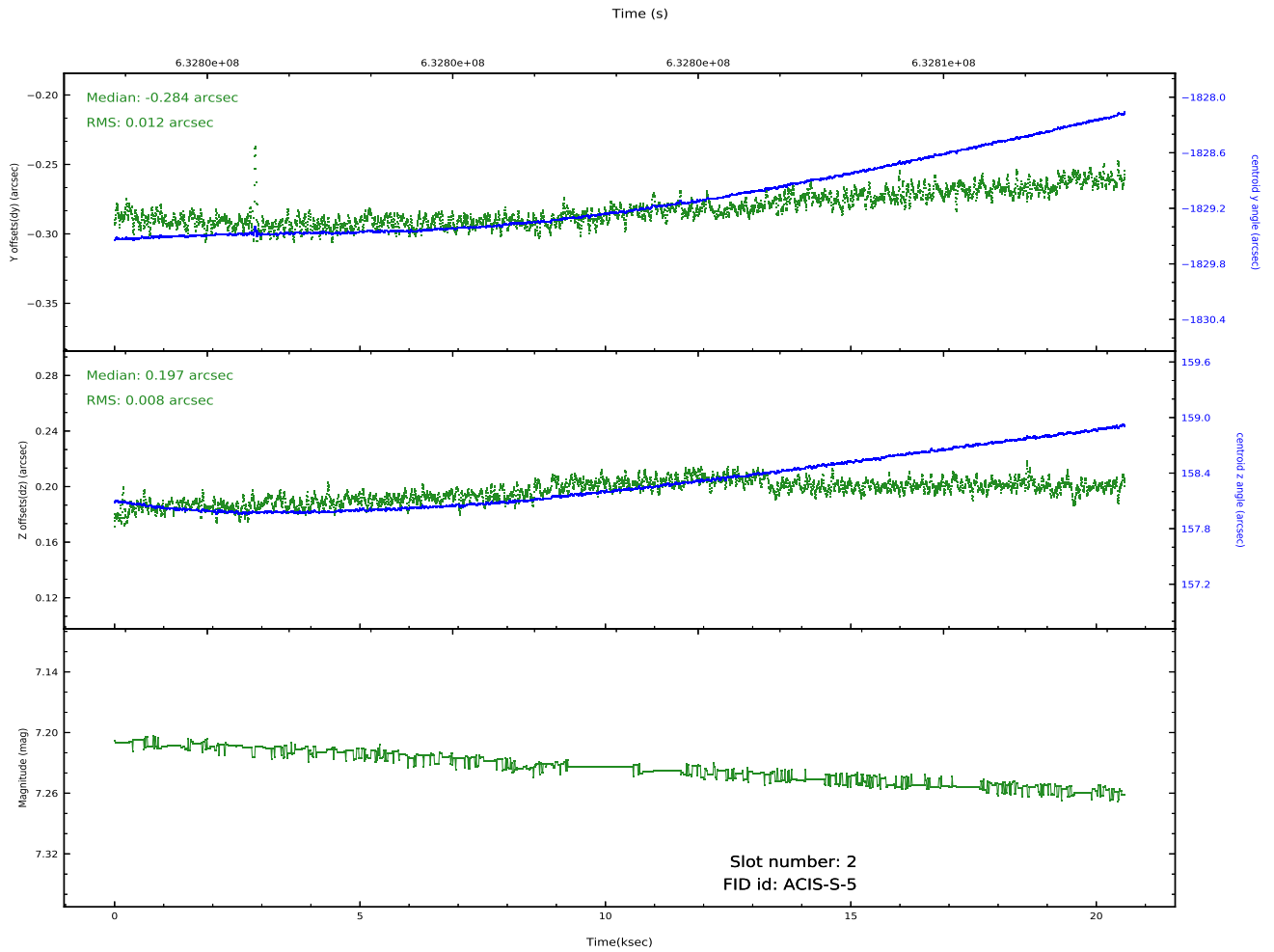
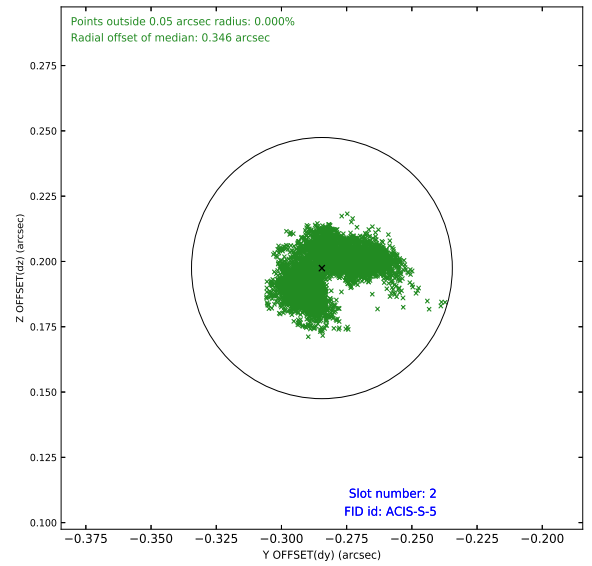
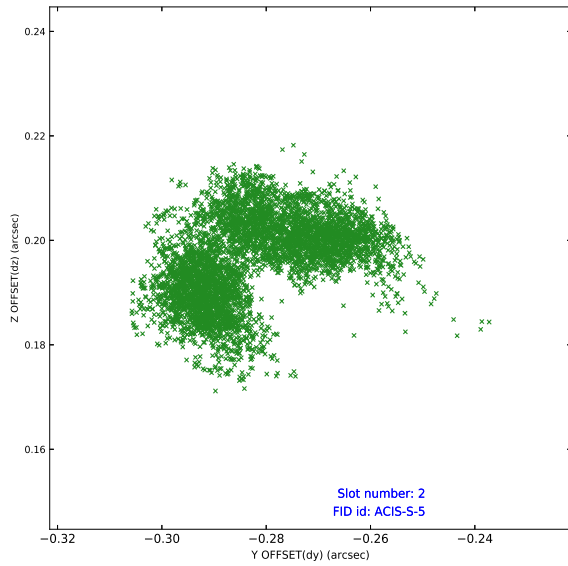
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2020.10.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.109700154781

A.2 Comments

Two optional chips were dropped.